

## WASPS OF THE GENUS *CERCERIS* IN THE QUEENSLAND MUSEUM.

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### *Cerceris hackeriana* n. sp.

Female (type). Length about 13 to 15 mm.; black, marked with red and yellow; head and thorax above with short ochreous pubescence; head massive, face very broad, orbits diverging below; sides of face above mandibles with appressed ochreous hair; elypeus black, finely punctured, the lower margin with four obtuse dentiform lobes, the upper part with a large outstanding lamina, its basal part broad and yellow, its apical part narrower, dark reddish, and bifid, ending in a pair of shining nodules; mandibles robust, strongly curved, dark red, with a yellow spot at base, the apical portion black, with a red spot at tip; antennæ entirely ferruginous; front and vertex dull and densely punctured, but a shining space at each side of ocelli; yellow lateral face-marks broad but short, ending obliquely at about level of antennæ; an elongate yellow spot behind the top of each eye; thorax very coarsely punctured, but area of metathorax convex, polished and smooth, weakly obliquely striate at sides; light marks of thorax consisting of a pair of cuneiform yellow marks on prothorax above; tubercles dull red, scutellum with a broad red band, obtusely excavated in middle behind, and postscutellum with an interrupted yellow band on red ground; tegulæ clear, ferruginous; wings strongly brownish, darker along upper margin; coxæ black, marked with cream-colour apically; legs otherwise ferruginous, the femora marked with black behind, the mark on the anterior ones confined to the base; abdomen strongly punctured, petiole broader than long, red at base, apex and sides, and with a small yellow spot on each side; second tergite black, with an entire apical yellow band; third with apical margin dull red, fourth with an apical yellow band margined with reddish, fifth with the basal two-fifths black, and the rest dull red; apex red, the pygidial plate broad, but narrowing apically.

Male. Length about 11.5 mm.; more slender; disc of elypeus occupied by a large subquadrate lemon-yellow area, and the bidentate lamina wholly absent; face narrowed, lateral marks much narrower, spots behind eyes small and pyriform; scutellum entirely black; black on femora more extensive, on anterior ones not confined to base; abdomen with yellow bands on second and fifth tergites, third all black, fourth with red hind margin, fifth and apex red. The petiole is longer than broad.

Two females, one male: Tooloom, N.S.W., Jan. 1926 (*H. Hacker*). Nearest to *C. opposita* Smith, but easily known by the elypeal lamina of the female, and other characters. *C. opposita* is a considerably smaller insect.

***Cerceris goddardi* n. sp.**

Female (type). Length slightly over 10 mm.: black, with yellow markings and a little red; hair scanty and pale, but forming rather conspicuous ochreous tomentum on fifth tergite; head, thorax and abdomen densely and strongly punctured, head broad, face very broad, orbits diverging below; clypeus short and transverse, its middle portion convex, its lateral portions band-like, the whole pale yellow except the lower margin of the middle portion which is black, and furnished with a pair of small tubercles on each side, the inner ones much the smallest; below the middle, the clypeus is expanded into a broad deeply emarginate or excavated lamina, the margin reddish, and ending on each side in a dark rounded angular projection (perhaps analogous to the structure in *C. armigera* Turner, but that is said to be apical, and not a lamina from the disc); mandibles externally yellow suffused with reddish, the apex black; lateral face-marks broad, light yellow, ending obtusely a little above level of antennæ, the inner margin convex; a narrow yellow line from near middle ocellus to upper end of supra-clypeal area; four equally spaced yellow spots on top of head, the outermost behind top of eyes; antennæ black above, dull ferruginous beneath, including scape; mesothorax very coarsely sculptured, entirely black; prothorax above with a pair of large broad-cuneiform light-yellow marks; tubercles black; scutellum somewhat shining, with sparse large punctures, and a yellow spot at each side; postscutellum with a yellow band; metathorax with a pair of very large, long-oval, whitish marks, approaching below; the area large, triangular, dull, minutely roughened, with a delicate median sulcus, mesopleura not tuberculate; tegulae bright ferruginous; wings dusky hyaline, darker in costal region, stigma orange; second cubital cell very broad, receiving recurrent nervure at middle (beyond middle in *C. hackeriana*); legs black, with knees, tibiae, and tarsi ferruginous; abdomen with petiole considerably longer than broad, black at base, pale yellow in middle, red at apex; second tergite with a large crescentic yellow mark on each side, third black, fourth with apical half yellow, fifth with a narrow apical yellow band and the extreme margin red; pygidial plate broad, ferruginous, the apical corners angulate; venter not modified.

Male. Length about 9 mm.; clypeus yellow, convex, with no lamina; frontal yellow stripe reaching clypeus; black bands between upper part of clypeus and lateral marks narrow; scape short, swollen, orange in front; no yellow spots at top of head; tegulae orange, black at base and narrowly in front; scutellum entirely black; second [cubital cell not broadened, its outer side incomplete above (the same on both sides), recurrent nervure received distinctly before the middle; third cubital cell not so produced apically; nervures darker; stigma less brightly coloured; anterior and middle trochanters and femora red in front; second tergite with a broad bright-yellow band, narrower in middle, and with a linear (suffused) red interruption; fourth and fifth tergites with yellow bands; pygidial plate mainly black, but dark red at apex and sides, and on each side of it a yellow spot; venter simple. The sixth tergite has a rather obscure yellow band, failing in middle.

Two other males are smaller, with a pair of yellow spots on scutellum, the tibiae and tarsi yellow, the band on second tergite broad and entire, the pygidial plate yellow, with a small dark mark at base.

One female, three males: Dunk Island, Queensland. The female collected May 1914 (*Hamlyn-Harris*); the males August 1927 (*H. Hacker*). Mr. Hacker marked the female "near *opposita* Sm."; it is easily known from that species by the structure of the clypeus. The males caused me a good deal of perplexity; at first I had them set apart as a distinct species, and even thought the larger and smaller males might be different. I conclude, however, that the whole series represents a single variable species, but commend the matter to investigators on the ground, who may be able to reverse this decision. The male is very much like that of *C. venusta* Sm. in many respects, but the lateral-face marks do not extend so far toward the middle of the face, the femora are largely black, the metathorax is spotted, the band on postscutellum is entire. In *C. venusta* the second cubital cell receives the recurrent nervure very near the base. The new species is named after Professor E. J. Goddard, in recognition of his organisation of the survey of the Dunk Island fauna.

***Cerceris calida* Turner, 1915.**

Female: Babinda, Queensland, July 18, 1923 (*W. C. Dormer*). The emarginate apex of clypeus is I feel sure not the morphological margin, but the emarginate lamina of *C. goddardi*, in this species becoming subapical. The second cubital cell is small and triangular, receiving the recurrent nervure about or a little before the middle. The second tergite is clear red, with a broad yellow base. The species was described from Kuranda.

***Cerceris darrensis* n. sp.**

Female. Length about 8 mm., rather slender, coarsely punctured, black with few light markings, the thorax being entirely black, except for a couple of obscure red spots on prothorax above; head very broad, with silvery hair at sides of face; clypeus, broad lateral marks (very broad below, narrower above, truncate a little above level of antennae), and under side of scape creamy-white; scape above clear red; flagellum strongly blackened above, clear red below; mandibles little curved, black at apex, red in middle, yellowish white at base; lower margin of middle lobe of clypeus broadly black, shining, with a small median tooth; disc of clypeus with an extended conical pointed spine or lamina, the apical part of which is black; a small round shining somewhat elevated yellow spot behind the top of each eye; area of metathorax rather small, triangular, moderately shining, but rugosopunctate, with a tendency to oblique striae; other parts of metathorax extremely coarsely and densely punctured; tegulae ferruginous, the margin anteriorly orange; wings hyaline, marginal cell and apex dusky; stigma dark reddish; second cubital cell small, receiving recurrent nervure well before middle; legs basally black, knees red, anterior and middle tibiae light yellow in front, infuscated behind; hind tibiae black, yellowish at apex and with a rather obscure yellowish stripe

behind; anterior and middle tarsi pale, hind tarsi dark fuscous; petiole broader than long, its apical margin red; second tergite black, obscurely reddish at base; third dull red, somewhat blackened in middle, with an apical interrupted pale yellow band; fourth black; fifth black, with a broad but obscure pale reddish band; pygidial plate broad, dark red, blackened apically. Pleura and venter simple.

Darra, Brisbane, Dec. 14, 1915 (*H. Hacker*). In Turner's table it falls near *C. opposita*, but it is very distinct by the structure of the clypeus and other characters. *C. unispinosa* Turner, from Darra, has a name which would have been appropriate for this species, but it is quite a different insect. Mr. Hacker had labelled this as a new species.

*Cerceris brisbanensis* n. sp.

Female. Length hardly 6.5 mm.; rather slender but with broad head, strongly punctured, black with pale ornaments; hair scanty and white, appressed and silvery on clypeus; mandibles pale yellow with long black apex; face pale yellow, with a rather narrow black band from each antenna down to clypeus, leaving an elevated yellow frontal carina, broadened below; lateral face-marks ending in an obtusely subangular manner halfway up front; a broad pale-yellow stripe behind eyes, the upper part divided, separating the usual postocular spot; a gently curved yellow band across top of head, interrupted in middle; margin of middle lobe of clypeus black, but it is overhung by a very broad short lamina, broadly and rather shallowly emarginate, with a dark rounded tubercle at each side, and anterolateral to these, on the true margin, is a shiny dark tubercle; scape yellow in front and behind, a little dark at apex; flagellum long, dark brown above, testaceous below; prothorax and mesothorax entirely black, or prothorax may have two large yellow spots; scutellum and postscutellum each with a yellow band, but that on scutellum may be interrupted; metathorax with a pair of fusiform yellow marks (a little stained with red), converging below; area of metathorax triangular, black, finely irregularly plicatulate all over; mesopleura simple; tegulae clear yellow; wings hyaline, dusky in marginal cell and at apex; stigma light rufous; second cubital cell very broad, receiving recurrent nervure before the middle; legs light reddish-testaceous, anterior ones blackened at base, and their femora darkened above; petiole much longer than broad, pale dull reddish, black at base; second tergite light yellow, suffused with red; third black, narrowly obscure red apically, and broadly so at sides; fourth dull pale yellow, black at base; fifth brown or pale yellowish; apical plate broad, very dark reddish or partly yellowish.

Two females, Darra, Brisbane, Dec. 14, 1915 (*H. Hacker*). An insignificant looking but distinct species, resembling *C. venusta*, but the structure of the clypeus is different.

*Cerceris goodwini* n. sp.

Female. Length about 8.3 mm.; black, with thin white hair, conspicuous at sides of metathorax and on cheeks, long on sides of petiole and basal part

of second tergite; head large and broad; face light yellow except the supra-clypeal area and a narrow band part-way down each side of clypeus; a short elevated yellow keel between the antennæ; lateral marks ending very broadly at about level of antennæ; small yellow spots behind upper part of eyes; lower margin of clypeus black, with lateral tubercles, and overhung by a black-edged very broadly and shallowly emarginate lamina, having at each side a rounded shining black tubercle (the whole structure similar in principle to that in *C. brisbanensis*); scape curved, black, with a subapical reddish spot in front; flagellum dark above, but apex above, and whole under side, bright ferruginous; thorax black, closely punctured (less so on scutellum); prothorax with a small crescentic yellow mark on each side above, but no other yellow markings on thorax; area of metathorax somewhat shining, with a median sulcus, which is finely cross-ribbed, and the surface of the area finely plicatulate and showing some punctures; mesopleura simple; tegulæ chrome yellow, with a basal reddish spot; wings greyish hyaline, dusky in marginal cell and beyond; stigma reddish black; second cubital cell very broad, receiving recurrent nervure a little before middle; legs basally black, but knees and tibiæ bright ferruginous; anterior and middle tarsi pale reddish, hind tarsi red, the small joints partly infuscated; petiole black, rugose, longer than broad, its hind margin narrowly red; second tergite black in middle, red at sides, with two large triangular yellow spots basally; third black; fourth black with a broad apical yellow band; fifth dusky red, with base black, and a narrow imperfect apical yellow band; apex dark, the broad pygidial plate reddish.

Stanthorpe, Queensland, July 31, 1924 (*F. A. Perkins*). Named after Sir John Goodwin, Governor of Queensland, an excellent naturalist, in recognition of his interest in the work of the entomologists. It is allied to the last species, but quite distinct. Also at Stanthorpe, Feb. 1, 1926, was taken a female *C. minuscula* Turner. The tegulae in both sexes are very bright ferruginous.

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